DEPARTMENT of ENVIRONMENTAL SERVICES
Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake:	CRANBERRY POND	Lake Area (ha):	7.49
Town:	ALSTEAD	Maximum depth (m):	2.7
County:	Cheshire	Mean depth (m):	0.9
River Basin:	Connecticut	Volume (m^3):	64500
Latitude:	43°04'36" N	Relative depth:	0.9
Longitude:	72°17'14" W	Shore configuration:	1.86
Elevation (ft):	1135	Areal water load (m/yr):	25.21
Shore length (m):	1800	Flushing rate (yr^{-1}):	29.20
Watershed area (ha):	391.2	P retention coeff.:	0.45
% watershed ponded:	0.9	Lake type:	artificial

BIOLOGICAL:		27 February 2002	31 July 2001
DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 70%	TETRAEDRON 90%
	#2	STAURASTRUM 20%	MOUGEOTIA 4%
	#3		EUDORINA 4%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			5.59
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	KERATELLA 27%
	#2		NAUPLIUS LARVA 21%
	#3		POLYARTHRA 14%
ROTIFERS/LITER		12	434
MICROCRUSTACEA/LITER		<1	285
ZOOPLANKTON ABUNDANCE (#/L)		14	761
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			2.3 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		7.6	7.6
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		< 1
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m^3) : None
Anoxic volume (m^3) : None

CHEMICAL:

Lake: CRANBERRY POND
Town: ALSTEAD

	27 February 2002		31 July 2001		
DEPTH (m)	1.5		1.5		
pH (units)	5.7		6.3		
A.N.C. (Alkalinity)	1.2		2.1		
NITRATE NITROGEN	0.05		< 0.05		
TOTAL KJELDAHL NITROGEN	0.20		0.50		
TOTAL PHOSPHORUS	<0.005		0.015		
CONDUCTIVITY (µmhos/cm)	68.0		50.1		
APPARENT COLOR (cpu)	13		20		
MAGNESIUM			0.65		
CALCIUM			1.8		
SODIUM			5.5		
POTASSIUM			0.46		
CHLORIDE	13		9		
SULFATE	6		4		
TN : TP			33		
CALCITE SATURATION INDEX			4.4		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 2001

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	5	1	8	Meso.

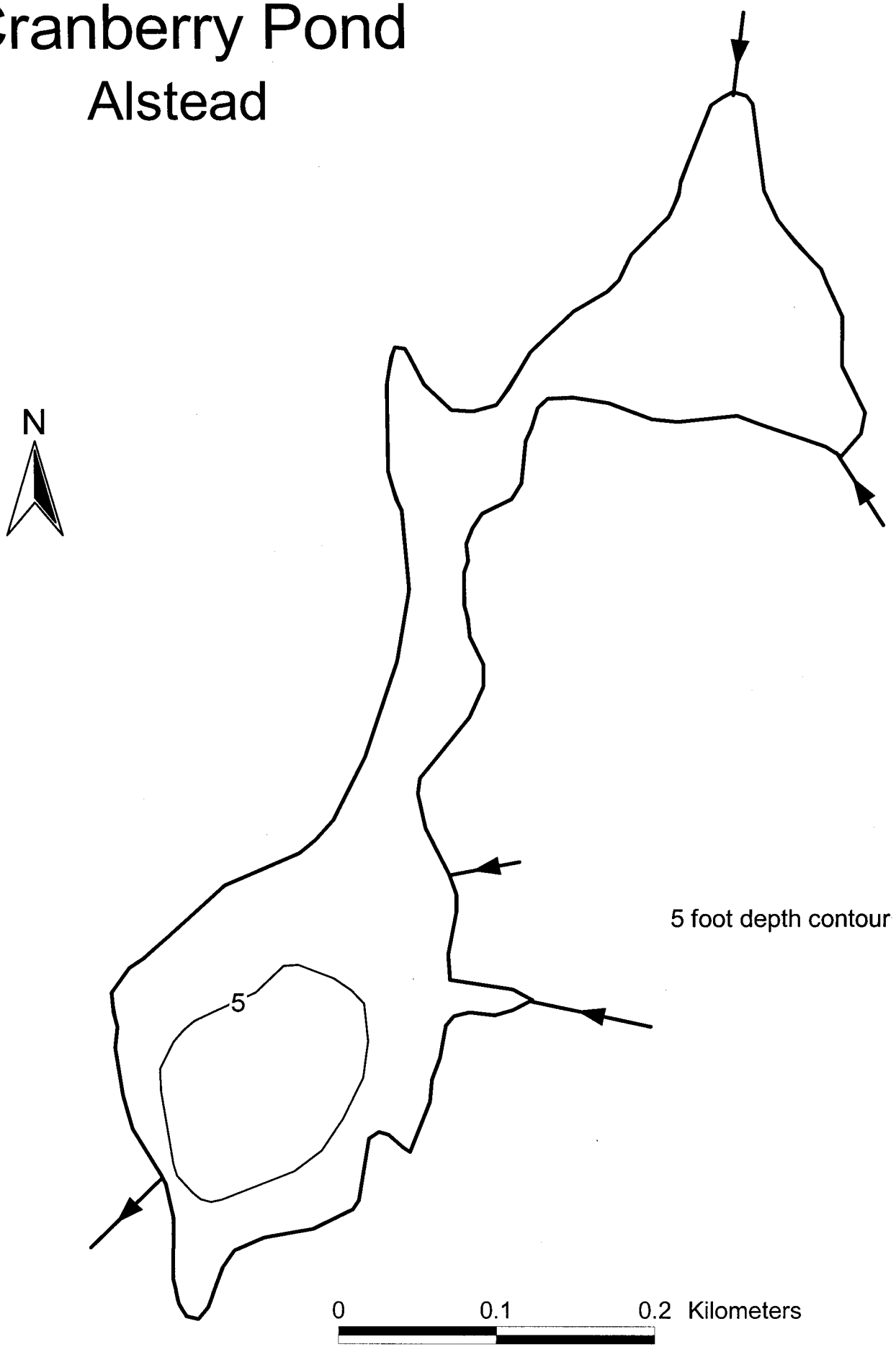
COMMENTS:

1. This pond is located within the Timber Owners of New England, Inc.'s Wildlife Conservation Trust and permission is required for access through the gate.

2. This is really two ponds – an upper and lower pond separated by a beaver dam.

3. Nineteen genera of net phytoplankton were observed, including many desmids, but there was a strong dominant and the dominant genus (*Tetraedron*) is one that is not generally dominant in NH ponds. Zooplankton were abundant and also varied (17 genera observed).

Cranberry Pond
Alstead



FIELD DATA SHEET

LAKE: CRANBERRY POND TOWN: ALSTEAD
DATE: 07/31/2001 WEATHER: Breezy & warm

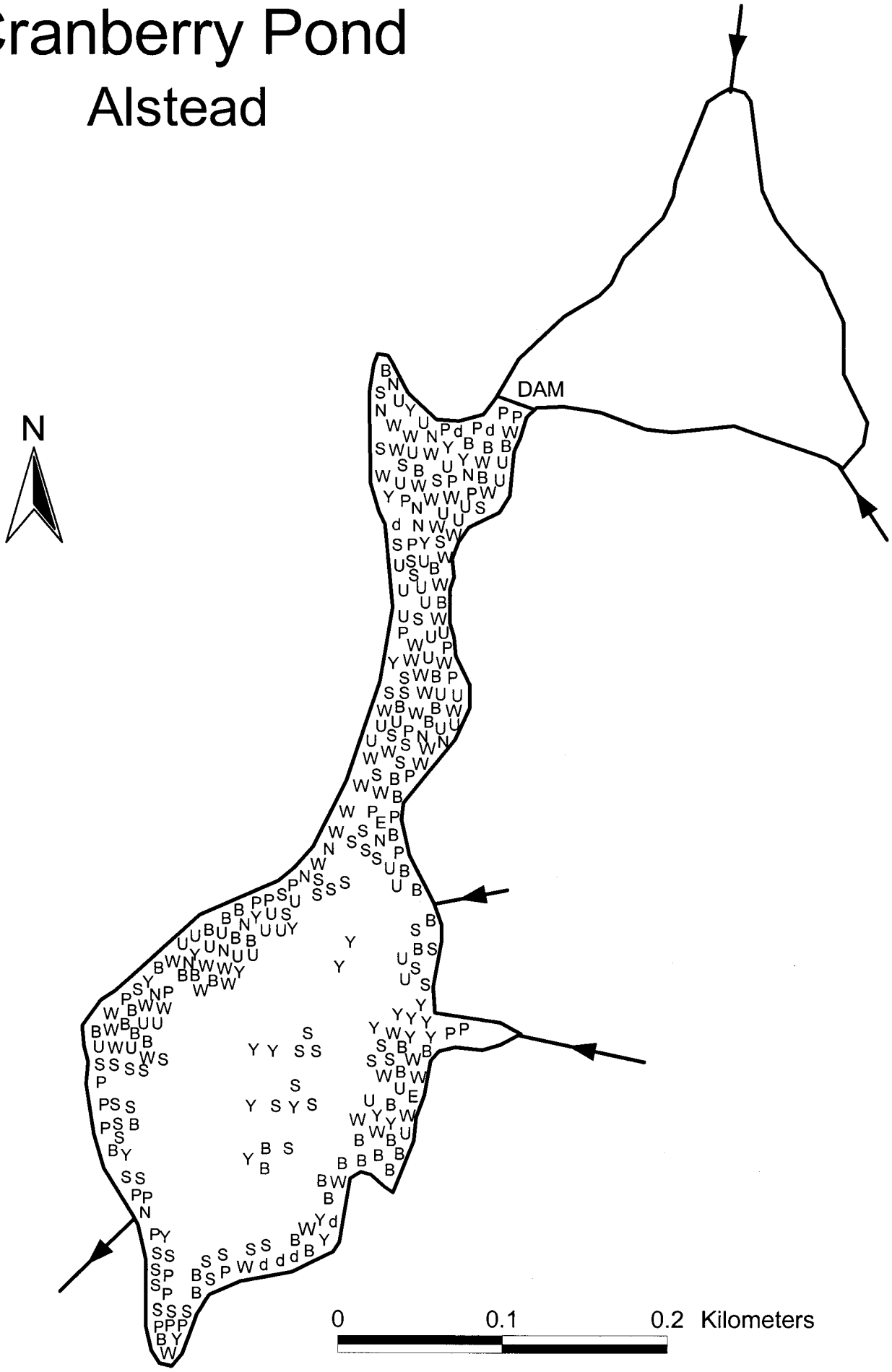
	DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
	0.1	24.5	7.9	94 %
	1.0	23.8	7.7	91 %
	2.0	23.3	7.6	90 %

SECCHI DISK (m): 2.3 VOB COMMENTS:
BOTTOM DEPTH (m): 2.3
TIME: 1130

*Dissolved oxygen values are in mg/L

Cranberry Pond

Alstead



AQUATIC PLANT SURVEY

LAKE: CRANBERRY POND TOWN: ALSTEAD DATE: 07/31/2001

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
S	Sparganium	Bur reed	Common
P	Pontederia cordata	Pickerelweed	Common
N	Nymphaea	White water lily	Scattered
Y	Nuphar	Yellow water lily	Scattered
B	Brasenia schreberi	Water shield	Common
W	Potamogeton	Pondweed	Scattered
d	Dulichium arundinaceum	Three-way sedge	Scattered
U	Utricularia	Bladderwort	Scattered
E	Eriocaulon septangulare	Pipewort	Scattered
A	Sagittaria	Arrowhead	Sparse
		Sterile thread-like leaf	Common/Abun

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

1. The upper pond (above the dam) was not surveyed but 90% of the surface was covered with emergent plants.
2. Much of the pond bottom was covered with thick growths of sterile, threadlike leaves; these are not depicted on the map to avoid masking the other plants.